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THE SYSTEM IS RELIABLE AND EFFECTIVE. CIVIL DEFENSE IS 36 YEARS--ETC(U)
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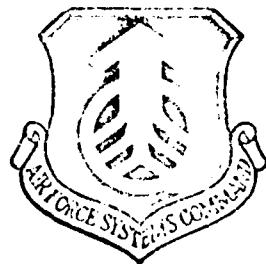
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FOREIGN TECHNOLOGY DIVISION

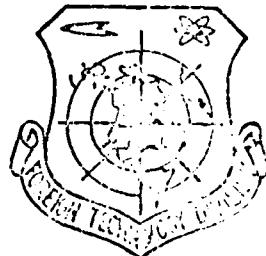


THE SYSTEM IS PREDICTIVE AND EFFECTIVE.

Civil Defense is 36 Years Old

by

D. Shavyrin



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MAY 18 1981

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U. S. BOARD ON GEOGRAPHIC NAMES TRANSLITERATION SYSTEM

Block	Italic	Transliteration	Block	Italic	Transliteration
А а	А а	A, a	Р р	Р р	R, r
Б б	Б б	B, b	С с	С с	S, s
В в	В в	V, v	Т т	Т т	T, t
Г г	Г г	G, g	У у	У у	U, u
Д д	Д д	D, d	Ф ф	Ф ф	F, f
Е е	Е е	Ye, ye; E, e*	Х х	Х х	Kh, kh
Ж ж	Ж ж	Zh, zh	Ц ц	Ц ц	Ts, ts
З з	З з	Z, z	Ч ч	Ч ч	Ch, ch
И и	И и	I, i	Ш ш	Ш ш	Sh, sh
Й ий	Й ий	Y, y	Щ щ	Щ щ	Shch, sch
К к	К к	K, k	Ь ъ	Ь ъ	"
Л л	Л л	L, l	Н н	Н н	Y, y
М м	М м	M, m	Ծ Ծ	Ծ Ծ	'
Н н	Н н	N, n	Э э	Э э	E, e
О о	О о	O, o	Ӯ ѿ	Ӯ ѿ	Yu, yu
П п	П п	P, p	Я я	Я я	Ya, ya

*ye initially, after vowels, and after ъ, ъ; e elsewhere.
When written as ё in Russian, transliterate as yё or ё.

RUSSIAN AND ENGLISH TRIGONOMETRIC FUNCTIONS

Russian	English	Russian	English	Russian	English
sin	sin	sh	sinh	arc sh	sinh ⁻¹
cos	cos	ch	cosh	arc ch	cosh ⁻¹
tg	tan	th	tanh	arc th	tanh ⁻¹
c _{tg}	cot	cth	coth	arc cth	coth ⁻¹
sec	sec	sch	sech	arc sch	sech ⁻¹
cosec	csc	csch	csch	arc csch	csch ⁻¹

Russian English

rot	curl
lg	log

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EDITED TRANSLATION

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THE SYSTEM IS RELIABLE AND EFFECTIVE

Civil Defense is 36 Years Old

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In a series of measures taken on strengthening the defense might of our country, the Communist Party and Soviet government have devoted and are devoting great deal of attention to the defense of the country's population from aerial attack. Even back in 1932 a special state system was created which was known as the MPVO - local air defense. This was an important step taken to strengthen the air defense of the Soviet government. The task of destroying the enemy in the air was that of fighter aircraft and the anti-aircraft weapons, while the MPVO protected the population when the enemy attacked the cities and the industrial sites and precluded the consequences of such an attack.

In the course of the Great Patriotic War the MPVO has totally justified its existence. The enemy aviation was not able to significantly disrupt the work in our rear area, create panic among the population, and undermine its moral stability. The selfless actions on the part of all MPVO units have facilitated greatly in a continual operation of the industry, transportation, and management of the cities.

As is known, the recent years saw a revolution in military affairs caused by the advent of nuclear weapons. Moreover, the aggressive actions on the part of USA and other imperialistic governments have increased. These conditions prompted a new approach to the solution of

the main problems of protecting the rear areas of the country. In 1961 MPVO was replaced by the civil defense of the USSR.

This is a system of national defense measures, which is called upon to provide protection for the population and national economic installations against nuclear, chemical, bacteriological, and other types of weapons, and also for carrying out rescue and immediate emergency restoration operations at the sites of mass destruction. Civil defense is occupying an important position in the overall system of defense measures of our government.

Nuclear war, if the imperialists will be able to unleash it, will be radically different from previous wars as regards the scale, intensity, and type of weapons used. It will be a conflict of two opposing world systems - socialist and capitalist. This will set the stage for the decisive goals of the war: its exceptional intensity and scope of involvement. This war will involve many countries, their armed forces, economy, and entire population.

The aggressor will attempt, first of all, to destroy the decisive means of the struggle, groupings of armed forces, demolish large administrative-political and industrial centers and the vitally important facilities. Under these conditions, there will be considerable destruction of buildings and installations and there will be great losses in civilian population deep inside the warring countries, including the outermost regions.

This supposition is supported by the data of last wars. Thus, when we consider that out of 10 million victims during the First World War only 500 thousand (5%) were civilians, during the Second World War, out of the 55 million that perished 48% were civilians.

It is clear that it is needless to speak of any sort of a boundary separating the front and rear in the future war, if it will be started by the imperialists. Such a war will assume a large-scale, destructive, and annihilating nature.

The aggressive circles in the West assume that the decisive role in achieving the victory belongs to the strategic forces of attack. These include: intercontinental missiles, nuclear submarines carrying missiles, heavy and medium bombers, and chemical and biological agents. In this case the intercontinental missiles are the principal force of

strategic attack.

However, one should bear in mind that the aggressors will not be able to fully utilize the arsenal of strategic weapons to achieve their ends. Part of the weapons delivery system will be destroyed or damaged before the weapons are deployed - at their location, bases, and airfields, another part will be destroyed or damaged by the PRO [anti-missile defense] and PVO [air defense] systems in flight on the approach to the territory of the countries of the socialist bloc, and part of the missiles and aircraft will not reach their targets for the technological reasons.

Taking into account the nuclear nature of a future war, the Communist Party and Soviet government are taking all possible steps in order to eliminate the threat hanging over humanity and are taking all possible measures to further strengthen the defense might of the USSR.

Soviet armed forces are equipped with the most modern technology and weaponry, are always at constant readiness, and are capable of fulfilling any combat missions in order to vanquish the enemy. However, the existing means of defense cannot fully guarantee protection for the population and national economy in case of enemy attack. A certain portion of nuclear weapons and chemical and biological agents can reach their targets. This fact has boosted the role of civil defense to an immeasurable prominence - protecting the population, ensuring the stability of operation of the national economy, eliminating the after-effects of the enemy attack in order to save the population and maintain the vital activity of industrial cities and economic centers.

The stability of operation of the industry, vital activity of the country, and supplying the armed forces and national economy with everything that is necessary without interruption will depend greatly on the successful actions of civil defense.

Relatively effective means and methods are available to civil defense for accomplishing their tasks, the foremost among which is to safeguard the population. This involves evacuation and dispersal of population, building of protective shelters, proving individual means of protection (gas masks, respirators, protective clothing articles), a number of preventive measures, which improve the nonsusceptibility of people to radioactive radiation and also to chemical and biological

agents and much more. All these methods and means are fully up to date, however, the population must be well prepared in their use.

Let us examine the basic protective measures.

By rights, the dispersal of workers and evacuation of population can be referred to as the most radical measures of protection. The experience of studies shows that this method can reduce the population density in large cities by tens of times.

The Soviet Union has all the conditions, which are necessary for a successful implementation of the dispersal and evacuation. The socialist structure and planned economy make it possible to organize and carry out this defense measure on a national scale. The immense expanses of our country and the large outlying areas make it possible to relocate an enormous amount of people in our rural areas. We have well developed and controlled means of transportation capable of evacuating people from the cities in short periods of time.

The success of dispersal and evacuation depends, to a great extent, on the organization, activity, and discipline of the population itself. We are talking about hundreds of thousands of city dwellers who will be removed from their living quarters. Many of them will not be able to take even their personal items. This transportation will occur without the usual conveniences. But it is important for everyone to understand that these difficulties and deprivation are necessary in order to save lives.

Of course it will be impossible to evacuate all the inhabitants of the cities. After the evacuation is complete, a certain portion of population will remain in the cities, which is necessary for continuing the production activity at the concerns and also in municipal services. Protection for this category of population is offered by special shelters and other types of protective structures.

As is known, nuclear weapons can strike any location in the country. This means that people have to be protected everywhere. This constitutes the special feature and difficulty of implementation of protective measures under the contemporary conditions.

People in the cities have to be protected against a shock wave, thermal radiation and fires, penetrating radiation and radioactive emissions, and also from fragments of building that are being demolish-

ed. In the rural areas the protection is mainly from radioactive contamination.

Protection from all the damaging factors of nuclear explosion can be ensured by special shelters constructed with thick walls, roof, and having a ventilation system which purifies the air from radioactive dust and toxic substances.

Shelters which offer protection againsts a shock wave also offer protection from radiation. At the same time, any structure which offers protection from radiation will, to a certain extent, also offer protection against a shock wave.

Sufficiently effective means of protection are not only the structures constructed specially for these purposes but also basements and recessed buildings adapted for blast shelters and fallout shelters. Adaptation of basements of stone buildings includes the filling-in of window openings, reinforcement of the ceiling, construction of the protective doors, and installation of the filter-ventilation system.

Basements, cellars, root cellars, vegetable stores, and also the ground floors of buildings and structures can be adapted for protection against radioactive radiation.

The adaptation of various buildings in rural areas also includes the thickening of walls and ceilings, filling-in of various apertures and openings, and sealing.

It should be noted that construction materials weaken radioactive radiation considerably. For example, brick buildings whose walls are 50 cm thick have the radiation attenuation factor of 300. As regards the various buildings recessed into the ground, their protective properties are quite high. Thus, the middle section of a basement of a stone building without any adaptation or the simplest structure with wood-earth ceiling of up to 1 m have the attenuation factor of 500-1000, while a mine or an underground shelter virtually exclude the danger of radiation.

Individual protective means have a special place in the population protection system. They are necessary in all instances and in any situation.

Contemporary individual means of protection have been devised in our country for the population in all age groups. And these items

are being manufactured. We have civilian gas masks - GP-4u and GP-5 - designed for adults and DP-6 and DP-6m designed for children in ages from 1.5 to 16 years old, and children's protective chambers for infants. All these means offer a reliable protection for the respiratory organs against toxic substances, bacterial agents, and radioactive dust.

The R-2 respirator can be considered as good means of protection for the respiratory organs against radioactive dust. It was designed for both the adults and children 7 years of age and older. The R-2 respirator is simple in construction and convenient to use.

Even a brief review of the basic protection means and methods for the population which can be used in case of a nuclear attack and which are available to civil defense makes it possible to draw a conclusion as to its great defense importance and the need for its continual improvement. This is one of the tasks which were passed into a resolution by the XXIII Congress of the KPSS.

Thanks to the relentless efforts of the Party and the government, in the last few years civil defense was transformed into a national system which is very effective and reliable, and became one of the most important factors in ensuring the vital activity of the government in case of a nuclear attack.

The duty of every Soviet citizen is to gain a good knowledge of civil defense and take an active part in its improvement.

